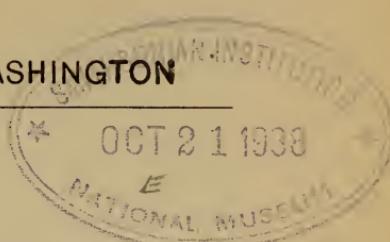


PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTONRESTITUTION OF THE NAME PTYCHEMYS HOYI
AGASSIZ FOR A WESTERN RIVER TORTOISE.

BY LEONHARD STEJNEGER.

The "cooters" recorded for the last fifty years under the name *Pseudemys texana* have been a source of misunderstanding and perplexity to herpetologists.

The confusion really started in 1857 when Agassiz (Contr. Nat. Hist. U. S., vol. 1, p. 433) referred two young specimens in the National Museum, Nos. 80 and 76, from the Pecos River, Texas, and San Luis Potosi, Mexico, respectively, to the species which he called *Ptychemys mobilensis*. By this name he understood a species totally different from Holbrook's *Emys mobilensis*, misled by their having the same type locality. As a matter of fact his *mobilensis* is the Gulf Coast form of the red-bellied slider, now known as *Pseudemys rubriventris alabamensis*, which is characterized by the maxillary tomium of its beak having a median notch flanked on either side by a cusplike projection. As the two specimens mentioned above possessed this character he naturally referred them to the *mobilensis* as he understood it.

The matter rested thus until 1893 when Baur discovered Holbrook's type specimen of *mobilensis* in the collection of the Philadelphia Academy and corrected Agassiz' mistake about the name. He also found at the Academy the shell of an adult specimen from San Antonio, Texas, which he recognized as being different from *mobilensis* (*alabamensis*) though apparently belonging to the same group of the genus *Pseudemys*. With this he associated the two specimens in the National Museum already mentioned and described the new form as *Pseudemys texana*. He also found in the Philadelphia collection an adult shell (No. 247) from Old Fort Cobb, Indian Territory, the soft parts of which were in the National Museum (U. S. N. M. No. 7173). Apparently without examining the latter he regarded the dry shell as identical with the San Antonio specimen and described all four specimens under the name *texana*, though particularly mentioning the San Antonio specimen (No. 246) as the type.

The first author to apply Baur's name independently was probably C. S. Brimley (Journ. Elisha Mitchell Soc., vol. 23, No. 2, June 1907, p. 77)

who listed two specimens, one from Colmesneil, Texas, the other from Shell Bank, Louisiana. The exact identification, however, must remain in doubt until new material from these localities can be examined. However, in 1909, Hurter and Strecker's paper on the Amphibians and Reptiles of Arkansas (Trans. Acad. Sci. St. Louis, vol. 18, May 14, 1909, p. 21), appeared, in which they stated that "the range of this species [*Chrysemys texana*] extends from Southwestern Missouri (Jasper and Newton Counties) south through western Arkansas and eastern Oklahoma to the Gulf of Mexico and the Rio Grande River . . . Dr. Baur considered *C. texana* the western representative of *C. concinna*, from which, according to his diagnosis, it differed in many important characters." Their error in quoting Baur as considering *texana* the representative of *concinna* instead of *rubriventris* may have originated in the obvious relationship of the Missouri and Arkansas specimens with *concinna*. The identification of the Missouri and Arkansas specimens as *texana* was undoubtedly influenced by Baur's inclusion of the Old Fort Cobb (Oklahoma) specimen among the type material of this species.

From this time on, the status of *Pseudemys texana* has remained as outlined by Hurter and Strecker above, and was accepted in all three editions of Stejneger and Barbour's Check List of the Amphibians and Reptiles of North America.

In the meantime, Mrs. H. T. Gaige submitted to me for identification a large, somewhat unusually patterned turtle from Brewster County, Texas. Its most conspicuous feature was a large, isolated yellow spot which completely dominated the side view of the head. My material for comparison available at the time was the two hatchling paratypes of *texana* which showed various differences from the large Brewster County specimen, yet because the paratypes varied considerably among themselves—a circumstance only too common in this variable genus—but especially because the Pecos River type presented a supratympanic yellow insulated spot, almost as conspicuous as that of the Brewster County specimen, I concluded that the latter represented one of the extreme variations of *P. texana*. This conclusion did not at the time appear unreasonable in view of the comparative closeness of the type localities.

Recent accumulation of Texas and other Transmississippian material at the National Museum, chiefly through the efforts of Burt, Ortenburger and others, led to a reexamination of the species with the result that I became highly suspicious of the identification of the Brewster County specimen and consequently requested the loan of it for a reexamination. In generously acceding to my request, Dr. Hartweg wrote me that he also questioned my determination and suggested that the specimen in reality was referable to the *Pseudemys ornata* group, a conclusion in which, upon seeing the specimen again, I was very glad to concur.

Through the courtesy of Dr. Dunn I was recently enabled to examine Baur's holotype of *Pseudemys texana* and confront it with his three paratypes, U. S. N. M. Nos. 76, 80 and 7173 with the startling result that No. 7173 collected in 1868 by Dr. E. Palmer at Old Fort Cobb, Indian Territory, does not belong to the same species as the other three specimens,

but is, as Hurter and Strecker remarked, a western representative of the *concinna* group. I need only point out that its upper beak does not show the faintest indication of a notch and cusps, and agrees in all other respects, including the important pattern on the side of the head, with the other specimens from Oklahoma, Kansas, Missouri and Arkansas.

As these appear to possess characters which have led to their mis-identification with *Pseudemys texana* and apparently differentiate them from other forms of the typical *concinna*, it seems expedient to recognize them nomenclaturally as

Pseudemys concinna hoyi (Agassiz).

The revival of the name requires an explanation:

In his "Contributions," vol. 1, p. 433, Agassiz under *Ptychemys concinna* wrote as follows:

"Professor Baird has sent specimens to me, collected by Dr. Hoy in south-western Missouri . . . The young . . . vary very much more in size and form than those of any other species in the family. This is also the case with the adults . . . some have a blunt head while in others the snout is more prominent. Before I knew that the blunt form of the head was an embryonic feature which is sometimes preserved in advanced age, I have distinguished such specimens under the name of *Ptychemys Hoyi*."

These blunt-headed specimens collected by Dr. P. R. Hoy for the Smithsonian Institution have apparently not been preserved as there are no such specimens in the Museum collections at present nor any entry in the National Museum registration catalog of any turtles collected by Hoy. Dr. Hoy collected only along the southern bank of the Missouri, and Agassiz' "southwestern Missouri" as the locality of these specimens is apparently only meant for western Missouri south of the Missouri River.

As already stated, this form belongs to the *concinna* group of the genus *Pseudemys* and seems to represent it west of the Mississippi River. One of the reasons, no doubt, which has contributed to its confusion with *P. texana* is the fact that in a number of specimens the horny cutting edge of the maxilla is marked by a median notch or emargination often emphasized on both sides by a slight bulge recalling the "cusps" of the beak of *texana*.

The actual types of Agassiz' *Ptychemys hoyi* apparently having been lost, I have selected as a neotype for the form as here understood, U. S. National Museum No. 55516, a female collected in Newton County, Missouri, by J. H. Black and by him presented to Mr. Julius Hurter. The plastral cheek pattern is present but obscure; the light lines on the carapace are of the usual reticulate type and so are the light head lines, except that those on the occiput form a somewhat intricate pattern behind the median head line. The horny edge of the upper jaw is smooth and mesially wavy, the median notch and lateral bulges being but slightly developed; edge of horny lower jaw is strongly denticulate. Total length of carapace 237 mm.; width 174 mm.; length of plastron 216 mm.; height of shell, 75 mm.; width of head (in alcohol) 29.4 mm.

The range of this form, as at present known, includes southeastern Kansas, Missouri south of the Missouri River, Arkansas, Northern Louisiana, Oklahoma and northeastern Texas.

